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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|--------------------------|---------------------|------------------|
| 10/679,994 | 10/06/2003 | Theodore D. Wakefield II | 12873/04650 | 4534 |
| 24024 | 7590 | 03/02/2006 | EXAMINER | |
| CALFEE HALTER & GRISWOLD, LLP 800 SUPERIOR AVENUE SUITE 1400 CLEVELAND, OH 44114 | | | NGUYEN, THU V | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3661 | |

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|------------------------|
| | 10/679,994 | WAKEFIELD, THEODORE D. |
| Examiner | Art Unit | |
| Thu Nguyen | 3661 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 October 2005.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-10 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 06 October 2003 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/19/05.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: ____ .

DETAILED ACTION

The amendment filed on October 17, 2005 has been entered. By this amendment, claims 11-20 have been canceled, and claims 1-10 are now pending in the application.

Drawings

1. The drawings are objected to because
 - a. Fig.1, 2, 3 are crowded in one page with small separation between the figures. This make it hard to recognize individual figures.
 - b. The indication "Fig.6" is missing in the last drawing.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smallwood et al (US 5,113,481) in view of Zimmermann et al (US 5,721,969).

As per claim 1, Smallwood teaches an apparatus for reprogramming a programmed controller of wheelchair, the apparatus comprises: a reprogrammable, non-volatile memory (col.7, lines 44-47), a general purpose computer 24 (fig.1) for programming the non-volatile memory (col.5, lines 53-55), furthermore storing programs for reprogramming a non-volatile memory in the external computer for control reprogramming of the non-volatile memory would have been well known; a means 26 (fig.1) for coupling the programmed computer to the wheelchair controller 16 (fig.1), the wheelchair controller communicate with the programmed computer for reprogramming the non-volatile memory (col.6, lines 14-26). Smallwood does not explicitly disclose that that the programs stored in the non-volatile memory are programs for operating the wheelchair, however, Zimmermann teaches storing programs in the non-volatile memory for controlling operation of a vehicle 9col.3, lines 50-62). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the vehicle control programs in the non-volatile memory taught by Smallwood as taught by Zimmermann in

order to reprogramming the control program of the wheelchair to facilitate customizing control of the wheelchair according to individual customer need.

As per claim 2-6, determining if a program is acceptable for execution base on a flag in order to prevent a program in the process of being reprogrammed, and executing a an acceptable programmed would have been well known. Furthermore, executing a program upon power up such as executing a bootstrap program for initializing the operation of the vehicle, and monitoring if data is being communicating from the external computer during reprogramming would have been well known.

As per claim 7, Zimmermann teaches a well known non-volatile flash memory used in place of a RAM (col.4, lines 5-10).

As per claim 8, Smallwood teaches an external personal computer (col.5, lines 26-28).

4. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smallwood et al (US 5,113,481) in view of Zimmermann et al (US 5,721,969) and further in view of Schwan et al (WO 03/01348) (using the US publication US 2004/0187035).

As per claim 9-10, Smallwood teaches a joystick for controlling operation of the vehicle (col.6, lines 25-29), and Schwan suggests that the data lines for programming can be the double functions data lines used by the control unit for controlling the machines (para 0002), it would have been obvious that the data lines used by the joystick is also the data lines used for

controlling the machine, using the data line used by the joystick of Smallwood for communicating data from external device to the vehicle controller through the known double function data lines taught by Schwan would have been obvious to an ordinary person skilled in the art at the time the invention was made in order to simplified circuit connection of the apparatus taught by Smallwood.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (571) 272-6967. The examiner can normally be reached on T-F (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 27, 2005



THU V. NGUYEN
PRIMARY EXAMINER